

15 April 1967

GPO PRICE \$  
 CFSTI PRICE(S) \$  
 Hard copy (HC) 2.00  
 Microfiche (MF) .65

ff 653 July 65

STERILIZATION ASSEMBLY DEVELOPMENT LABORATORY

- PERSONNEL PROCEDURES FOR SADL OPERATIONS -

15 April 1967  
 JPL PROC. SADL 201.00

This work was performed for the Jet Propulsion Laboratory,  
 California Institute of Technology, sponsored by the  
 National Aeronautics and Space Administration under  
 Contract NAS7-100.

Prepared by

AVCO CORPORATION  
 SPACE SYSTEMS DIVISION  
 Lowell, Massachusetts

for

JET PROPULSION LABORATORY  
 CALIFORNIA INSTITUTE OF TECHNOLOGY  
 PASADENA, CALIFORNIA



N68-22517

(ACCESSION NUMBER) 121  
 (PAGES) 3  
 (THRU) 1  
 (CODE) 05  
 (CATEGORY)  
 (NASA CR OR TXR OR AD NUMBER)

**-NOTE-**

This report contains information prepared by AVCO Corporation, Space Systems Division, under JPL subcontract. Its content is not necessarily endorsed by the Jet Propulsion Laboratory, California Institute of Technology, or the National Aeronautics and Space Administration

15 April 1967

STERILIZATION ASSEMBLY DEVELOPMENT LABORATORY

- PERSONNEL PROCEDURES FOR SADL OPERATIONS -

15 April 1967  
JPL PROC. SADL 201.00

PREPARED BY: H. C. Schwartz  
H. C. Schwartz  
AVCO CORPORATION

PREPARED BY: E. J. Lunney  
E. J. Lunney  
AVCO CORPORATION

APPROVED BY: T. H. Rider  
T. H. Rider  
AVCO CORPORATION

APPROVED BY: W. W. Paik  
W. W. Paik  
JET PROPULSION LABORATORY

APPROVED BY: G. H. Redmann  
G. H. Redmann  
JET PROPULSION LABORATORY

JET PROPULSION LABORATORY  
CALIFORNIA INSTITUTE OF TECHNOLOGY  
PASADENA, CALIFORNIA

CHANGES

No.	Description	Date

## CONTENTS

<u>Section</u>		<u>Page</u>
I.	Introduction .....	1
	A. Objective .....	1
II.	Requirements .....	1
	A. Personnel .....	1
	B. Applicable Documents .....	1
III.	General .....	1
IV.	Detailed Procedure .....	3

## ILLUSTRATIONS

<u>Figure</u>		<u>Page</u>
1.	Sterilization Assembly Development Laboratory Floor Plan .....	5

## ABBREVIATIONS

SADL	Sterilization Assembly Development Laboartory
OSE	Operational Support Equipment
QA	Quality Assurance
CRB	Contamination Review Board
Z line	Zebra line defining the point beyond which the room is considered governed by Federal Std 209a

## I. INTRODUCTION

### A. OBJECTIVE

To establish the proper personnel cleaning and clothing procedures to be used upon entry and during operations in the Assembly Room (140) or the Sterile Transfer Room (141).

## II. REQUIREMENTS

### A. PERSONNEL

Personnel with proven need to enter the Assembly Room (140) or the Sterile Transfer Room (141) of SADL shall register their name in the Log maintained in the Facility Control Room (116) and follow the procedures of Section IV.

### B. APPLICABLE DOCUMENTS

1. Facility Control Personnel Entry Log.
2. Q. A. Personnel Procedure for SADL Operations (verification sheet).

## III. GENERAL

A. Any occurrence of the following violations observed will be immediately reported to the Quality Assurance representative who will stop the work and consult with the Microbiology representative as to the seriousness of the violation. The Quality Assurance representative and the Microbiology representative will determine the classification of the violation as either minor or major. If the violation is minor and on-the-spot remedial action can be taken, the action will be taken and work continued. For example, a break or tear in a glove which requires that only the individual with the torn glove replace it. A major violation or a questionable major violation will be immediately referred to the chairman of the Contamination Review Board (CRB). The chairman will immediately examine the situation and will indicate CRB action. The CRB will document, institute, and supervise the corrective action.

### LIST OF MAJOR VIOLATIONS

1. Not following the specific procedures as set forth in SADL 100, 101, 200, 201, 202, and 300 are violations.

2. Entering Room 140 SADL (140) without Quality Assurance monitoring.
3. Entering Room 140 SADL (140) when it has not been certified.  
(Exceptions or waivers should be obtained from the facilities manager to enter under these conditions.)
4. Coughing/or sneezing.
5. Reaching under protective clothing for any purpose.
6. Smoking
7. Eating or chewing food, candy, gum etc.
8. Tools, material, parts, components or other elements used for fabrication of subassemblies or assemblies left on the work bench uncovered or unprotected during non-work periods.
9. Entering Assembly Room with a cough, cold diarrhea, open sores and wounds or any other infectious disorder.
10. Entering Assembly Room with a flaking skin condition such as sun burn or other types of dermatological disorder.
11. Recovery by hand without forceps of components, tools, instruments, devices or other material when dropped on the floor.
12. Actions committed using gloves which are torn, perforated, or not covering the protective smock.
13. Excessive handling and/or manipulation of tools, materials, instruments, components, parts and subassemblies.
14. Work done directly over a subassembly or an assembly may be a violation.

#### LIST OF MINOR VIOLATIONS

1. Improper washing and dressing.
2. Entering SADL (140) Assembly Room (140) improperly washed and/or dressed.
3. Running, jumping and/or boisterous behavior.



4. Scratching or rubbing of the body.
5. Presence or loitering in Assembly Room.
6. Excessive and/or vigorous movement
7. Actions committed while improperly garbed. For example, mask not properly covering nose and mouth, or hood not completely under smock.

#### IV. DETAILED PROCEDURES

<u>Step</u>	<u>Operation</u> (See Figure 1.)
1.	Sign in on Log in Facility Control (116).
2.	Check into Suit Handling Room (115) and see that garments are in the pass-thru box assigned to you.
3.	Enter shoe cleaning Room (114). This door is locked and entry is by key held by facility or Quality Assurance personnel.
4.	Wipe both shoes with a clean rag, disposing of rag in waste rag container.
5.	Clean each shoe in shoe cleaner for 20 seconds. Shoe cleaner is activated by pulling the cross bar toward you.
6.	Enter the locker room (133) and hang outer garments in locker assigned to you, removing wrist watches, rings and any other jewelry that could cause contamination.
7.	Enter wash room (134).
8.	Remove sterile brush and fingernail file from cabinet on wall.
9.	Clean fingernails. (Fingernails should also be kept short to reduce the possibility of puncturing a rubber glove.)
10.	Set manual timer for 2 minutes.
11.	Scrub hands, wrists, and arms (to about 6 inches above the wrist) vigorously with a mixture of hot water and pHisoHex for the full 2 minutes.
12.	After timer has completed 2-minute cycle, rinse hands and arms in clean warm water.
13.	Dry hands and arms in hot air dryer being careful not to touch one hand against the other. The hand dryer will shut off automatically and one cycle per arm is usually sufficient for drying.
14.	Open door to air shower and close door behind. This starts the air shower automatically. It will continue to blow air for about 2 to 3 minutes. Place arms above head and turn around so that air strikes all parts of the body.

Step

Operation

15. After the air shower stops, open the door to the suit lock (137) and obtain garments previously placed in cabinet.
16. Proceed with garments into first air lock. After closing door wait 2 minutes for pressure to equalize between air lock and dressing room then open door and proceed into dressing room (138).
17. Don protective clothes in the following order.
  - a) Pull on hood and snap, checking that all hair is covered.
  - b) Don the smock so that the hood is inside the collar of the smock. Snap all snaps including wrists.
  - c) Put on sterile mask squeezing the mask to fit over the bridge of the nose.
  - d) Pull on sterile rubber gloves and obtain approval from QA before moving across Z line.
18. Enter air lock (139) and proceed down corridor to either the sterile transfer room (141) or the Assembly Room (140) depending upon the business to be conducted.
19. Personnel may move from the Sterile Assembly Room (141) to the Assembly Room (140) and back without further precautions.
20. After completing work requirements, leave by the Air Lock, turning right at the west end and entering the Vestibule (117). In the Vestibule it is again necessary to wait until the pressure is equalized outside and inside before the last door may be opened.
21. Proceed to Suit Handling Room (115) and remove protective clothes, depositing them in the containers noted.
22. For reentry into assembly room, all steps must be repeated.
23. Custodians will follow the above procedures.
24. All steps will be witnessed by QA and any deviations will be noted and corrected.

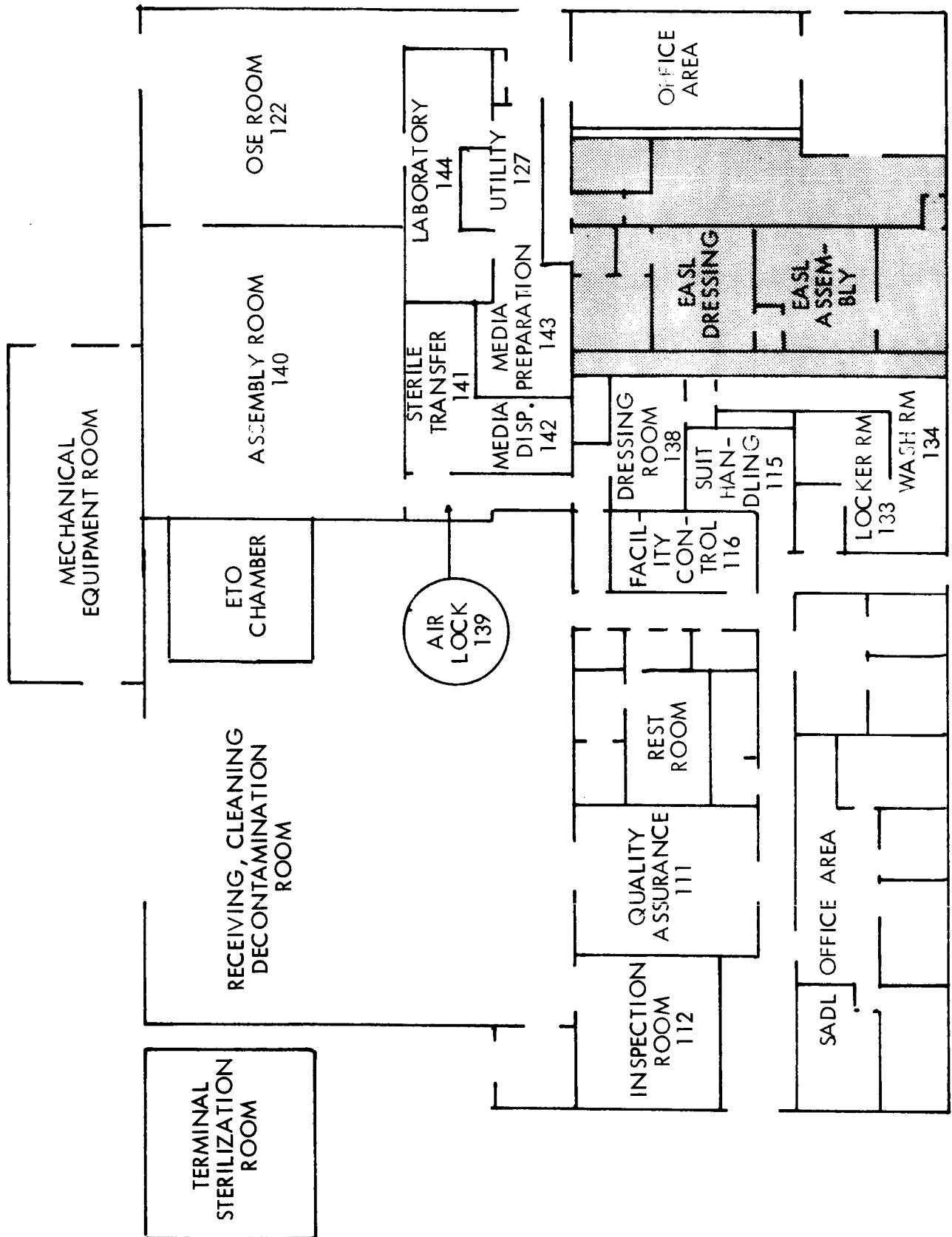


Figure 1. STERILIZATION ASSEMBLY DEVELOPMENT  
LABORATORY FLOOR PLAN